

ABSTRACT

The present invention comprises a MMDS broadcast digital video cell system on one polarization and a smaller array of cells, designed for two way services that use the orthogonal polarization in the same area. The present invention includes a method for distributing information in a MMDS network comprising the steps of providing a video signal in a first polarization and a first direction to a first area, the video signal having a frequency within a predetermined set of frequencies, the method further includes providing a two-way digital signal in a second polarization and a second direction to the first area, the two-way digital signal having a frequency within the predetermined set of frequencies, wherein the second polarization is orthogonal to the first polarization. The present invention also includes a system for distributing information in a MMDS network comprising a digital video signal transmitter, wherein the video signal has a first polarization. In addition, the video signal has a frequency within a predetermined set of frequencies. The system also includes a digital video signal receiver at a receiver site and a digital communication signal transmitter for transmitting communication signals wherein the communication signal has a second polarization. The communication signal has a frequency within the same predetermined set of frequencies. Finally, a digital communication signal receiver is located at the receiver site in a direction that differs from the digital video signal receiver.